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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,046	05/30/2000	Yu-Suk Yun	678-495 (P9204)	9895

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EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

8

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/584,046

Applicant(s)

YUN ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed on 2/18/04. Claim 1 has been canceled and claims 2-6 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (USP 6466563) in view of Admitted prior art.

Regarding claims 2-4, Yamada discloses (Figs 1-9 and Col. 1, lines 1 to col. 10, lines 38) the method comprising the steps of determining whether there is data to transmit to a base station and gating transmission of the control information includes a power control signal (Fig 3, TPC);

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pilot symbol (Fig 3, PL) in a partial duration of a predetermined one of the slots when there is no data to transmit for a predetermined time (Fig 1, 3, 5 and col. 3, lines 37-45). However, Yamada does not disclose a method for transmitting control information in a mobile station of a mobile communication system which transmits the control information filled in a frame on a dedicated control channel, the frame being divided into a plurality of slots and TFCI bits, and FBI bits for a phase difference between at least two transmit diversity antennas used by the base station. In the same field of endeavor, the admitted prior art discloses a system comprising a dedicated control channel (DPCCH) for transmitting a data frame having a plurality of time slots and TFCI bits, and FBI bits for a phase difference between at least two transmit diversity antennas used by the base station. (Figs 1-3 and 5 and Page 1, lines 20 to page 10, lines 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a dedicated control channel (DPCCH) for transmitting a data frame having a plurality of time slots as disclosed by the admitted prior art into Yamada's system. The motivation would have been to allow synchronization with the base station to be maintained and making it possible to restart communication immediately.

Regarding claims 5-6, Yamada discloses (Figs 1-9 and Col. 1, lines 1 to col. 10, lines 38) a switch (Fig 1, Ref 309) for gating a signal such control information having transmission power signal and pilot symbol (Fig 3, Ref TPC and PL) and a controller (Fig 2, Ref 308) for gating the switch such that when there is no dedicated data channel signal to be transmitted to a base station for a predetermined time, the control information is transmitted in a partial duration of a predetermined one of slots constituting a frame (Fig 1, 3, 5 and col. 3, lines 37-45). However, Yamada does not fully disclose a mobile station transmitter for a mobile communication

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system, comprising a dedicated control channel (DPCCH) for transmitting control information including TFCI bits, and FBI bits for a phase difference between at least two transmit diversity antennas used by the base station; a dedicated data channel (DPDCH) for transmitting user data. In the same field of endeavor, a mobile station transmitter for a mobile communication system, comprising a dedicated control channel (DPCCH) for transmitting control information including TFCI bits, and FBI bits for a phase difference between at least two transmit diversity antennas used by the base station; a dedicated data channel (DPDCH) for transmitting user data (Figs 1-3 and 5 and Page 1, lines 20 to page 10, lines 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a dedicated control channel (DPCCH) for transmitting control information including TFCI bits, and FBI bits for a phase difference between at least two transmit diversity antennas used by the base station; a dedicated data channel (DPDCH) for transmitting user data as disclosed by the admitted prior art into Yamada's system. The motivation would have been to allow synchronization with the base station to be maintained and making it possible to restart communication immediately.

Response to Arguments

5. Applicant's arguments filed 2/18/04 have been fully considered but they are not persuasive.
6. In response to page 2, the applicant states that the references do not disclose gating a signal on the dedicated physical control channel. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references

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individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Butler (USP 6545989) discloses a transmit gating in a wireless communication system.

Monn (USP 6643272) discloses a method and system for controlling the power level in a DTX mode.

Hamalainen (WO 98-36508) discloses a method and system for performing in DTX mode.

Kim (USP 6438119) discloses a method and system for communicating via a DCH.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven HD Nguyen
Primary Examiner
Art Unit 2665
4/15/04